\_\_\_\_\_\_

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: markspencer

Timestamp: [year=2008; month=9; day=19; hr=12; min=12; sec=48; ms=554; ]

\_\_\_\_\_\_

## Validated By CRFValidator v 1.0.3

Application No: 10552298 Version No: 2.0

Input Set:

Output Set:

**Started:** 2008-08-21 12:29:43.441

Finished: 2008-08-21 12:29:45.386

0

**Elapsed:** 0 hr(s) 0 min(s) 1 sec(s) 945 ms

Total Warnings: 56

No. of SeqIDs Defined: 68

Actual SeqID Count: 68

Total Errors:

Error code		Error Description
W	402	Undefined organism found in <213> in SEQ ID (9)
W	402	Undefined organism found in <213> in SEQ ID (10)
W	402	Undefined organism found in <213> in SEQ ID (11)
W	402	Undefined organism found in <213> in SEQ ID (12)
W	402	Undefined organism found in <213> in SEQ ID (13)
W	213	Artificial or Unknown found in <213> in SEQ ID (17)
W	213	Artificial or Unknown found in <213> in SEQ ID (18)
W	213	Artificial or Unknown found in <213> in SEQ ID (19)
W	213	Artificial or Unknown found in <213> in SEQ ID (20)
W	213	Artificial or Unknown found in <213> in SEQ ID (21)
W	213	Artificial or Unknown found in <213> in SEQ ID (22)
W	213	Artificial or Unknown found in <213> in SEQ ID (23)
W	213	Artificial or Unknown found in <213> in SEQ ID (24)
W	213	Artificial or Unknown found in <213> in SEQ ID (25)
W	213	Artificial or Unknown found in <213> in SEQ ID (26)
W	213	Artificial or Unknown found in <213> in SEQ ID (27)
W	213	Artificial or Unknown found in <213> in SEQ ID (28)
W	213	Artificial or Unknown found in <213> in SEQ ID (29)
W	213	Artificial or Unknown found in <213> in SEQ ID (30)
W	213	Artificial or Unknown found in <213> in SEQ ID (31)

## Input Set:

## Output Set:

**Started:** 2008-08-21 12:29:43.441 **Finished:** 2008-08-21 12:29:45.386

**Elapsed:** 0 hr(s) 0 min(s) 1 sec(s) 945 ms

Total Warnings: 56

Total Errors: 0

No. of SeqIDs Defined: 68

Actual SeqID Count: 68

Error code		Error Description						
W	213	Artificial or Unknown found in <213> in SEQ ID (32)						
W	213	Artificial or Unknown found in <213> in SEQ ID (33)						
W	213	Artificial or Unknown found in <213> in SEQ ID (34)						
W	213	Artificial or Unknown found in <213> in SEQ ID (35)						
W	213	Artificial or Unknown found in <213> in SEQ ID (36) This error has occured more than 20 times, will not be displayed						

## SEQUENCE LISTING

<110>	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA GILL, Gordon N. YEO, Michele LIN, Patrick S. DAHMUS, Michael E.						
<120>	PHOSPHATASE REGULATION OF NUCLEIC ACID TRANSCRIPTION						
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tcactct	tct	gctgtgtctg	ccgggatgat	ggggaggccc	tgcctgctca	cagcggggcg	180
ccctgc	cttg	tggaggagaa	tggcgccatc	cctaagaccc	cagtccaata	cctgctccct	240
gaggcca	agg	cccaggactc	agacaagatc	tgcgtggtca	tcgacctgga	cgagaccctg	300
gtgcaca	agct	ccttcaagcc	agtgaacaac	gcggacttca	tcatccctgt	ggagattgat	360
				cgtcctcatg			420
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				ttccgggccc			540
				ctgagccggt			600
				tatgtcttcc			660
				acagagctcc			720
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tag

783

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<213> Homo sapiens
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1 5 10 15
Gly Pro Leu Arg Gly Lys Gly Asp Gln Lys Ser Ala Ala Ser Gln Lys
               25 30
Pro Arg Ser Arg Gly Ile Leu His Ser Leu Phe Cys Cys Val Cys Arg
  35 40 45
Asp Asp Gly Glu Ala Leu Pro Ala His Ser Gly Ala Pro Leu Leu Val
            55 60
 50
Glu Glu Asn Gly Ala Ile Pro Lys Thr Pro Val Gln Tyr Leu Leu Pro
65 70 75 80
Glu Ala Lys Ala Gln Asp Ser Asp Lys Ile Cys Val Val Ile Asp Leu
     Asp Glu Thr Leu Val His Ser Ser Phe Lys Pro Val Asn Asn Ala Asp
     100 105 110
Phe Ile Ile Pro Val Glu Ile Asp Gly Val Val His Gln Val Tyr Val
          120 125
 115
Leu Lys Arg Pro His Val Asp Glu Phe Leu Gln Arg Met Gly Glu Leu
         135 140
  130
Phe Glu Cys Val Leu Phe Thr Ala Ser Leu Ala Lys Tyr Ala Asp Pro
145 150 155 160
Val Ala Asp Leu Leu Asp Lys Trp Gly Ala Phe Arg Ala Arg Leu Phe
         165 170 175
Arg Glu Ser Cys Val Phe His Arg Gly Asn Tyr Val Lys Asp Leu Ser
   180 185 190
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Arg Leu Gly Arg Asp Leu Arg Arg Val Leu Ile Leu Asp Asn Ser Pro

195 200 205

Ala Ser Tyr Val Phe His Pro Asp Asn Ala Val Pro Val Ala Ser Trp
210 215 220

Phe Asp Asn Met Ser Asp Thr Glu Leu His Asp Leu Leu Pro Phe Phe 225 230 235 240

Glu Gln Leu Ser Arg Val Asp Asp Val Tyr Ser Val Leu Arg Gln Pro 245 250 255

Arg Pro Gly Ser 260

<210> 3

<211> 852

<212> DNA

<213> Homo sapiens

<400> 3

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<210> 4

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<211> 283
<212> PRT
<213> Homo sapiens
<400> 4
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             10 15
Val Leu Thr Lys Gln Gly Leu Val Ser Lys Ser Ser Pro Lys Lys Pro
     20 25 30
Arg Gly Arg Asn Ile Phe Lys Ala Leu Phe Cys Cys Phe Arg Ala Gln
    35 40 45
His Val Gly Gln Ser Ser Ser Thr Glu Leu Ala Ala Tyr Lys Glu
     55 60
Glu Ala Asn Thr Ile Ala Lys Ser Asp Leu Leu Gln Cys Leu Gln Tyr
65 70 75 80
Gln Phe Tyr Gln Ile Pro Gly Thr Cys Leu Leu Pro Glu Val Thr Glu
      Glu Asp Gln Gly Arg Ile Cys Val Val Ile Asp Leu Asp Glu Thr Leu
              105
      100
                                 110
Val His Ser Ser Phe Lys Pro Ile Asn Asn Ala Asp Phe Ile Val Pro
   115 120 125
Ile Glu Ile Glu Gly Thr Thr His Gln Val Tyr Val Leu Lys Arg Pro
  130 135 140
Tyr Val Asp Glu Phe Leu Arg Arg Met Gly Glu Leu Phe Glu Cys Val
145 150 155 160
Leu Phe Thr Ala Ser Leu Ala Lys Tyr Ala Asp Pro Val Thr Asp Leu
         165 170
Leu Asp Arg Cys Gly Val Phe Arg Ala Arg Leu Phe Arg Glu Ser Cys
              185
      180
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Val Phe His Gln Gly Cys Tyr Val Lys Asp Leu Ser Arg Leu Gly Arg

195 200 205

Asp Leu Arg Lys Thr Leu Ile Leu Asp Asn Ser Pro Ala Ser Tyr Ile
210 215 220

Phe His Pro Glu Asn Ala Val Pro Val Gln Ser Trp Phe Asp Asp Met 225 230 235 240

Ala Asp Thr Glu Leu Leu Asn Leu Ile Pro Ile Phe Glu Glu Leu Ser 245 250 255

Gly Ala Glu Asp Val Tyr Thr Ser Leu Gly Ala Ala Ala Gly Pro Leu 260 265 270

Ala Cys Pro Ala Ser Lys Arg Arg Pro Ser Gln 275 280

<210> 5

<211> 798

<212> DNA

<213> Homo sapiens

<400> 5

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<212> PRT
<213> Homo sapiens
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Glu Gly Arg Leu Pro Gly Ala Gly Glu Lys Ala Ser Gln Cys Asn Val
      20 25 30
Ser Leu Lys Lys Gln Arg Ser Arg Ser Ile Leu Ser Ser Phe Phe Cys
    35 40 45
Cys Phe Arg Asp Tyr Asn Val Glu Ala Pro Pro Pro Ser Ser Pro Ser
 50 55 60
Val Leu Pro Pro Leu Val Glu Glu Asn Gly Gly Leu Gln Lys Pro Pro
65 70 75 80
Ala Lys Tyr Leu Leu Pro Glu Val Thr Val Leu Asp Tyr Gly Lys Lys
        85 90 95
Cys Val Val Ile Asp Leu Asp Glu Thr Leu Val His Ser Ser Phe Lys
              105 110
       100
Pro Ile Ser Asn Ala Asp Phe Ile Val Pro Val Glu Ile Asp Gly Thr
    115 120 125
Ile His Gln Val Tyr Val Leu Lys Arg Pro His Val Asp Glu Phe Leu
  130 135 140
Gln Arg Met Gly Gln Leu Phe Glu Cys Val Leu Phe Thr Ala Ser Leu
145 150 155 160
Ala Lys Tyr Ala Asp Pro Val Ala Asp Leu Leu Asp Arg Trp Gly Val
                170 175
          165
Phe Arg Ala Arg Leu Phe Arg Glu Ser Cys Val Phe His Arg Gly Asn
                185
       180
```

Tyr Val Lys Asp Leu Ser Arg Leu Gly Arg Glu Leu Ser Lys Val Ile 195 200 205 Ile Val Asp Asn Ser Pro Ala Ser Tyr Ile Phe His Pro Glu Asn Ala 210 215 220

Val Pro Val Gln Ser Trp Phe Asp Asp Met Thr Asp Thr Glu Leu Leu 225 230 235 240

Asp Leu Ile Pro Phe Phe Glu Gly Leu Ser Arg Glu Asp Asp Val Tyr
245 250 255

Ser Met Leu His Arg Leu Cys Asn Arg 260 265

<210> 7

<211> 642

<212> DNA

<213> Homo sapiens

<400> 7

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<210> 8

<211> 213

<212> PRT

<213> Homo sapiens

<400> 8

Met Met Gly Arg Pro Cys Leu Leu Thr Ala Gly Arg Pro Cys Leu Trp 1 5 10 15

Arg Arg Met Ala Pro Ser Leu Arg Gln Thr Pro Val Gln Tyr Leu Leu 20 25 30 Pro Glu Ala Lys Ala Gln Asp Ser Asp Lys Ile Cys Val Val Ile Asp 35 40 45 Leu Asp Glu Thr Leu Val His Ser Ser Phe Lys Pro Val Asn Asn Ala 50 55 60 Asp Phe Ile Ile Pro Val Glu Ile Asp Gly Val His Gln Val Tyr 65 70 75 80 Val Leu Lys Arg Pro His Val Asp Glu Phe Leu Gln Arg Met Gly Glu Leu Phe Glu Cys Val Leu Phe Thr Ala Ser Leu Ala Lys Tyr Ala Asp 100 105 110 Pro Val Ala Asp Leu Leu Asp Lys Trp Gly Ala Phe Arg Ala Arg Leu 115 120 125 Phe Arg Glu Ser Cys Val Phe His Arg Gly Asn Tyr Val Lys Asp Leu 130 135 140 Ser Arg Leu Gly Arg Asp Leu Arg Arg Val Leu Ile Leu Asp Asn Ser 145 150 155 160 Pro Ala Ser Tyr Val Phe His Pro Asp Asn Ala Val Pro Val Ala Ser 165 170 175 Trp Phe Asp Asn Met Ser Asp Thr Glu Leu His Asp Leu Leu Pro Phe 180 185 190 Phe Glu Gln Leu Ser Arg Val Asp Asp Val Tyr Ser Val Leu Arg Gln 195 200 205

Pro Arg Pro Gly Ser 210

<210> 9 <211> 783 <212> DNA <213> Drosophila

<400> 9						
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tcactcttct	gctgtgtctg	ccgggatgat	ggggaggccc	tgcctgctca	cagcggggcg	180
cccctgcttg	tggaggagaa	tggcgccatc	cctaagaccc	cagtccaata	cctgctccct	240
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ggggtggtcc	accaggtcta	cgtgttgaag	cgtcctcatg	tggatgagtt	cctgcagcga	420
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gtagctgacc	tgctggacaa	atggggggcc	tteegggeee	ggctgtttcg	agagteetge	540
gtcttccacc	gggggaacta	cgtgaaggac	ctgagccggt	tgggtcgaga	cctgcggcgg	600
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<210> 10

tag

<211> 260

<212> PRT

<213> Drosophila

<400> 10

Met Asp Ser Ser Ala Val Ile Thr Gln Ile Ser Lys Glu Glu Ala Arg

1 5 10 15

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780

783

Gly Pro Leu Arg Gly Lys Gly Asp Gln Lys Ser Ala Ala Ser Gln Lys
20 25 30

Pro Arg Ser Arg Gly Ile Leu His Ser Leu Phe Cys Cys Val Cys Arg 35 40 45

Asp Asp Gly Glu Ala Leu Pro Ala His Ser Gly Ala Pro Leu Leu Val $50\,$ 

Glu Glu Asn Gly Ala Ile Pro Lys Thr Pro Val Gln Tyr Leu Leu Pro 65 70 75 80

Glu Ala Lys Ala Gln Asp Ser Asp Lys Ile Cys Val Val Ile Glu Leu 85 90 95 Asn Glu Thr Leu Val His Ser Ser Phe Lys Pro Val Asn Asn Ala Asp 100 105 110 Phe Ile Ile Pro Val Glu Ile Asp Gly Val Val His Gln Val Tyr Val 115 120 125 Leu Lys Arg Pro His Val Asp Glu Phe Leu Gln Arg Met Gly Glu Leu 135 140 Phe Glu Cys Val Leu Phe Thr Ala Ser Leu Ala Lys Tyr Ala Asp Pro 145 150 155 160 Val Ala Asp Leu Leu Asp Lys Trp Gly Ala Phe Arg Ala Arg Leu Phe 165 170 175 Arg Glu Ser Cys Val Phe His Arg Gly Asn Tyr Val Lys Asp Leu Ser 180 185 190 Arg Leu Gly Arg Asp Leu Arg Arg Val Leu Ile Leu Asp Asn Ser Pro 195 200 205 Ala Ser Tyr Val Phe His Pro Asp Asn Ala Val Pro Val Ala Ser Trp 210 215 220 Phe Asp Asn Met Ser Asp Thr Glu Leu His Asp Leu Leu Pro Phe Phe 225 230 235 240 Glu Gln Leu Ser Arg Val Asp Asp Val Tyr Ser Val Leu Arg Gln Pro 250 255 245 Arg Pro Gly Ser 260 <210> 11 <211> 642 <212> DNA <213> Drosophila

<400> 11

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60

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gtgttgaagc	gtcctcacgt	ggatgagttc	ctgcagcgaa	tgggcgaget	ctttgaatgt	300
gtgctgttca	ctgctagcct	cgccaagtac	gcagacccag	tag		